APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/560,346	07/25/2006	Leonard Rexberg	2380-1463	6407

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EXAMINER
GHULAMALI, QUTBUDDIN

ART UNIT	PAPER NUMBER
2611	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Advisory Action *Before the Filing of an Appeal Brief*	Application No. *10/560,346*	Applicant(s) REXBERG, LEONARD	
	Examiner Qutbuddin Ghulamali	Art Unit 2611	

--*The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

THE REPLY FILED <u>22 March 2010</u> FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

   a) ☒ The period for reply expires <u>3</u> months from the mailing date of the final rejection.

   b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

   Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

<u>NOTICE OF APPEAL</u>

2. ☐ The Notice of Appeal was filed on _____. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

<u>AMENDMENTS</u>

3. ☐ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will <u>not</u> be entered because

   (a)☐ They raise new issues that would require further consideration and/or search (see NOTE below);

   (b)☐ They raise the issue of new matter (see NOTE below);

   (c)☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or

   (d)☐ They present additional claims without canceling a corresponding number of finally rejected claims.

   NOTE: _____. (See 37 CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).

5. ☐ Applicant's reply has overcome the following rejection(s): _____.

6. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).

7. ☒ For purposes of appeal, the proposed amendment(s): a) ☐ will not be entered, or b) ☒ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.

   The status of the claim(s) is (or will be) as follows:

   Claim(s) allowed: _____.

   Claim(s) objected to: _____.

   Claim(s) rejected: <u>1-14</u>.

   Claim(s) withdrawn from consideration: _____.

<u>AFFIDAVIT OR OTHER EVIDENCE</u>

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will <u>not</u> be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).

9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will <u>not</u> be entered because the affidavit or other evidence failed to overcome <u>all</u> rejections under appeal and/or appellant fails to provide a showing a good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).

10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

<u>REQUEST FOR RECONSIDERATION/OTHER</u>

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because: <u>See Continuation Sheet.</u>

12. ☐ Note the attached Information *Disclosure Statement*(s). (PTO/SB/08) Paper No(s). _____

13. ☐ Other: _____.

/CHIEH M FAN/
Supervisory Patent Examiner, Art Unit 2611

Continuation of 11. does NOT place the application in condition for allowance because: the remarks are considered not persuasive. Applicant remarks, page 3-5, Wright does not disclose determining a first estimate of a first look-up table assigned to a first filter tap and determining a second estimate of a second look-up table. The examiner disagrees. Wright discloses (fig. 3) in detail use of look-up tables storing correction filter tap parameters, fig. 4A and 4B, 5, 6A, 6B, 7, 8 show features utilized in storing parameters both present (first) and (updated second) ones. Wright further discloses As depicted in FIG. 3, the column index to the look-up table 52H is generated by delaying, filtering, and then quantizing the power signal. The purpose of the integration filter 52F is to compute the previous magnitude/power profile that has been applied to the amplifier. A high output value from the integration filter 52F indicates that the previous input profile has caused the amplifier to operate at high power for a period of time; in this situation, the nonlinearity exhibited by the amplifier 60 may be quite different from that exhibited when the amplifier is operated at a low power profile. The integration filter 52F is preferably a Finite Impulse Response (FIR) filter, although an Infinite Impulse Response (IIR) or other type of filer may alternatively be used. In one embodiment, the FIR integration filter uses taps that are spaced at non-uniform time intervals. In another embodiment, the FIR integration filter comprises a punctured FIR filter structure (i.e., uses FIR taps spaced at non-uniform time intervals that exceed the signal sampling period). The overall size of the look up table 52H can vary from a single column vector to an extensive two dimensional array. In practice, a table consisting of 128-256 rows capturing the instantaneous magnitude drive level combined with 16-32 columns capturing the past integration power profile is sufficient for commercial operation. As depicted by the vector X.sub.+ in FIG. 3, the ACPCE 70 periodically updates the correction coefficients stored within the look-up table 52H, and updates the associated filter coefficients used by the integration filter 52F. The number of taps N used for the predistortion filter 52A is a matter of design choice, but may, for example, be in the range of 5-11. Since a different set of FIR filter coefficients is used for each input sample of the input signal $V_m(t)$ (indexed by power or amplitude), the nonlinear integration filter 52F is constructed from a bank of linear filters and a bank of multiplier stages. The input to each multiplier is the input signal magnitude and the output of the previous multiplier stage. This permits the set of signals, $x(t)$, $x.sup.2(t)$, $x.sup.3(t)$ . . . $x.sup.n(t)$, to be computed from the original input signal $x(t)$. Each new signal is then fed to a linear FIR filter. As with the basic integration filter, the FIR filter tap coefficients and delay periods between taps are fully adjustable by the ACPCE. If each filter is regarded as an nth order kernel, the structure permits any linear or nonlinear function of the past input power profile to be computed. This permits accurate indexing into the two dimensional predistortion filter table 52H that corrects for the instantaneous distortion that is being generated by the nonlinear amplifier. As to applicant's remarks, page 4-6, Ding does not correct deficiency in Wright namely Ding is silent regarding any training method and that Ding does not discloses any FIR filter structure. Examiner cannot find any recitation of training method let alone the FIR structure in the portion "wherein each lookup table represents a discretized polynomial in a variable representing signal amplitude", the remarks therefore, considered irrelevant to use of Ding. Ding fairly discloses FIR filter structure include individual look-up tables each represents a discretized polynomial in a variable representing signal amplitude (magnitude of the signal) (col. 2, lines 31-53; col. 4, lines 5-8, 44-67). Therefore, applicant's remarks regarding Wright and Ding in an attempt to overcome the rejection cited previously is deemed not persuasive. The rejection is maintained.